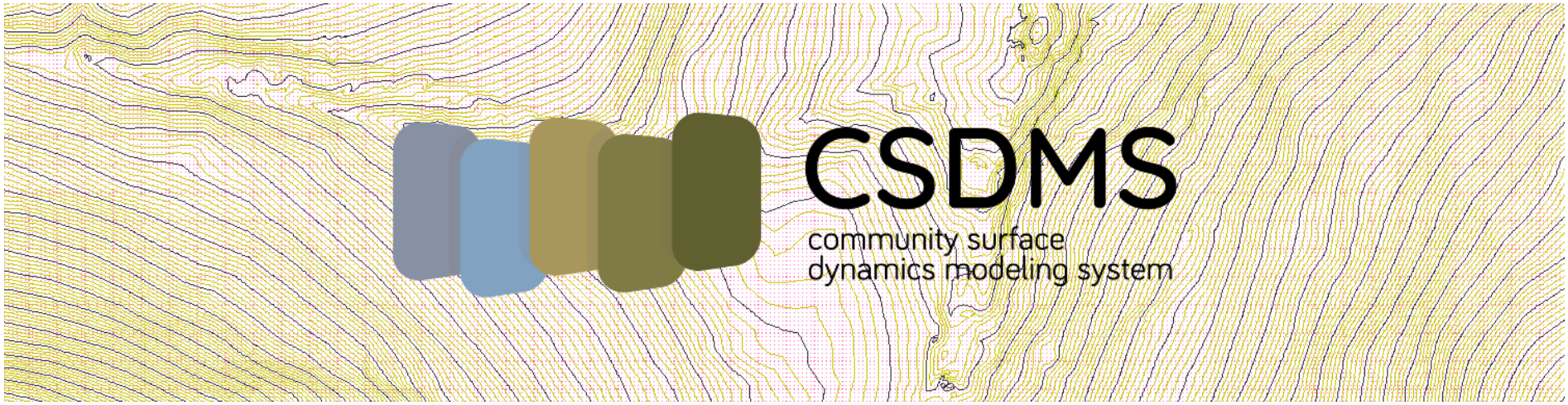
CSDMS November Newsletter - 2025 Annual Meeting!

Wed, Nov 20, 2024 at 11:49 AM



ON THE SURFACE

CSDMS Newsletter *November 2024*

Join CSDMS

CSDMS Annual Meeting Save the Date!

Join us in Boulder this year for a meeting focused on scaling the peaks of creative computing from PDEs to machine learning and beyond! Registration opens in January.

Important Deadlines:

- **Student Modeler Competition** submission deadline is January 24th, 2024. Submission requirements and additional details can be found here.
- **Call for Clinic presentations!** Each year a variety of clinics are available for registered meeting attendees. If you would like to provide a clinic, additional details and the submission form can be found here. Deadline to submit is November 30th, 2024. Submitters will be notified of acceptance decisions in early January, 2025. Travel and lodging support is provided for selected clinic presenters.
- A limited number of **Travel Scholarships** will be available and the deadline to apply is February 9th, 2025. Application information will be available on the meeting web page in mid-January.

2025 Earth Surface Processes Institute
May 5th through 12th in Boulder, CO

The Earth Surface Processes Institute (ESPIn) is a six-day immersive training experience for 25 students. ESPIn offers hands-on training in numerical modeling, collaborative coding, and open-source software development, with an emphasis on best practices such as version control, unit testing, continuous integration, and open metadata/modeling standards. ESPIn introduces students to cyberinfrastructure such as the CSDMS Workbench via tutorials delivered on the OpenEarthscape JupyterHub. Students will be provided an opportunity to present their ESPIn team projects at the CSDMS 2025 Annual Meeting which directly follows the ESPIn program. Travel and subsistence support will be provided for all selected students for ESPIn and the CSDMS Annual Meeting. **Application window opens December 2nd, 2024 and the deadline for submission is January 24th, 2025.**

Application details for the 2025 ESPIn can be found here!

CSDMS/OpenEarthscape
2025 Visiting Scholars Program

Application window opens December 1st, 2024 (deadline February 16th, 2025). The Summer Visiting Scholar Program is open to graduate students interested in spending up to 6 weeks at the CSDMS Integration Facility at the University of Colorado, Boulder. Selected students will be working on their own research and will benefit from mentoring with the CSDMS Research Software Engineers and faculty/staff. Our cohorts in 2022, 2023 and 2024 were resounding successes and we hope to make the 2025 program even more beneficial for your research progress. We anticipate 1-2 students will be selected for the 2025 program. In addition to proximity to the CSDMS Software Engineers and other team members, the Integration Facility can provide the following support:

Student

Domestic travel and lodging support for up to 45 days in Boulder. Stipend support is available for US Citizens only and is based on CU GRA rates @100% for summer semester (about $5,400 per month). International students and students in the US on F-1 and J-1 visas are welcome to apply and travel/lodging support will be provided, but stipend support cannot be provided due to visa restrictions.

Advisor

Travel and lodging support for a 7-day trip to Boulder (including per diem and ground transportation) to work collaboratively with CSDMS and the student.

Priority will be given to students that have computational projects that:

- Are "shovel ready".
- Will result in a product, such as a publication, a conference presentation, a new model component, an educational tutorial, etc.

To apply, please send an email to csdms@colorado.edu by February 16, 2024 with your name, brief description of your future goals, description of the specific project that could benefit from CSDMS Integration Facility support and any resulting products proposed. Additionally, we'll need approval from your advisor to participate in the program (this can be in the form of an attached letter or email).

We're excited to work with you and we look forward to chatting about how the CSDMS Integration Facility can most usefully contribute to your research next summer!

CSDMS Community News

Elowyn Yager, Department of Civil and Environmental Engineering, University of Idaho, has agreed to serve a

three year term on the CSDMS Steering Committee. Elowyn brings valuable links to experimental process geomorphology, sediment transport mechanics and biogeomorphology. She is Co-Director of the Center for Ecohydraulics Research at UI.

CSDMS is also happy to announce that **Jonathan Gilligan,** Department of Earth and Environmental Sciences, Vanderbilt University, has joined the CSDMS Steering Committee. Jonathan brings experience in coupled natural-human systems, with work that encompasses agent-based modeling and sediment transport. They is also Director of Vanderbilt's interdisciplinary Grand Challenge Initiative on Climate and Society.

Pedro Val, Queens College, CUNY, has also agreed to serve on the CSDMS Steering Committee. Pedro leads the LEGACi Lab. He brings expertise in tectonic geomorphology as well as deep connections with the global south (formerly at Universidade Federal de Ouro Preto, Brazil). Pedro has been involved with the DELTA H project "working on building a more balanced, diverse, and inclusive community and a safe environment for interactions between undergraduates and graduates, and leading scientists in the international field of Landscape Evolution and Geomorphology."

Solicitation for Nominations - CSDMS 2025 Lifetime Achievment Award

The CSDMS Lifetime Achievement Award is bestowed each year during the CSDMS Annual Meeting for outstanding and sustained achievements in earth surface processes modeling research and service contributions to the global CSDMS community. For the first time this year, we are opening the nomination process for the award to the community. If you would like to nominate someone, please contact us at csdms@colorado.edu with the individuals name, contact information and reason for the nomination **by January 10th, 2025**. A review committee will convene to discuss the nominations and select a winner sometime in February 2025.

New to CSDMS Code Repository

Almost 450 models, tools and components are now available in the CSDMS code and metadata repository for numerical models and scientific software tools. CSDMS encourages all community members to make their software (and data) "FAIR": Findable, Accessible, Interoperable and Reusable. **Want to broaden the impacts of your open-source model or tool?** Consider contributing your model to the CSDMS Model Repository. The following models have recently been submitted and are available for community use:

Models

ArcDelRCM - Arctic-delta reduced-complexity model that can reproduce the 2-m ramp feature ubiquitous to Arctic deltas.

COAWST - A Coupled-Ocian-Atmosphere-Wave-Sediment Transport Modeling System.

COLT Restorations - Geomorphic and carbon evolution of a bay-marsh-forest coastal transect with restorations.

CWatM - Community Water Model is a hydrological model simulating the water cycle at global and local levels, historically and into the future.

CoAStal Community-lAnDscape Evolution (CASCADE) model - A coupled landscape and human dynamics modeling framework for barrier evolution.

DynQual - A dynamical surface water quality model.

GeoFlood - A computational model for overland flowing.

lHydroSlide3D - Integrated hydrological processes and 3-dimensional landslide prediction model.

MPeat2D - A fully-coupled mechanical-ecohydrological model of peatland development in 2 dimensions.

NEMO - Nucleus for European Modeling of the Ocean.
NEWTS - Numerical model of Coastal Erosion by Waves and Transgressive Scarps.
OpenAMUNDSEN - A modular snow and hydroclimatalogical modeling framework written in Python.
PCR-GLOBWB - A large scale hydrological model intended for global and regional studies.
UIDS - A Matlab-based urban flow model considering rainfall-induced and surcharge-induced innundations.
WAVI.jl - Ice sheet modeling in Julia.
WSIMOD - Water Systems Integrated Modeling framework.
WTM - Coupled groundwater and dynamic lake modeling.

Tools:
DbSEABED Data Component - A CSDMS data component used to download the marine substrates data sets from the dbSEABED system.
IncrementalDebrisFlowVolumeAnalyzer - Estimate incremental volume changes (erosion and deopsition) along the path of a debris flow.
MizuRoute - A stand-alone runoff routing tool.
PySBeLT - A Python software package for stochastic sediment transport under rarified conditions.
Rabpro - River and basin profiler.
RivGraph - Automatic extraction and analysis of river and delta channel network topology.
TopoPyScale - A Python package for hillslope climate downscaling.
WAVEWATCH lll Data Component - A CSDMS data component used to fetch and cache WAVEWATCH lll datasets.

CSDMS Community Teaching and Research Resources

CSDMS Workbench - https://csdms.colorado.edu/wiki/Workbench
CSDMS Model Repo - https://csdms.colorado.edu/wiki/Model_download_portal
Open Earthscape Jupyter Hub - https://csdms.colorado.edu/wiki/JupyterHub
CSDMS EKT Labs - https://csdms.colorado.edu/wiki/Labs_portal

https://csdms.colorado.edu/wiki/OfficeHours

Office Hours (via Zoom) with a CSDMS Research Software Engineer - 9AM on Wednesdays. To register -

CSDMS Help Desk - https://csdms.github.io/help-desk/

Join us on Bluesky, Mastadon and LinkedIn!

We're excited to announce that CSDMS has officially transitioned to BlueSky, Mastodon and LinkedIn! This move represents an opportunity to expand our digital presence and connect with other vibrant communities dedicated to sharing and participating in engaging discussions. This will allow us to enhance our interactions and provide a platform that hosts more like-minded scholars for sharing updates, resources and insights. We look forward to continuing our work and engaging with all of you in these virtual spaces. Please follow us and share your "skeets"/posts and be the first to know about all the new CSDMS events and resources!! @CSDMS.bsky.social on Bluesky,
@CSDMS@fediscience.org on Mastodon and Community Surface Dynamics Modeling System on LinkedIn.



CSDMS is an NSF

sponsored program

CSDMS/Greg Tucker <csdms@colorado.edu> Wed, Nov 20, 2024 at 11:49 AM
Reply-To: CSDMS/Greg Tucker <csdms@colorado.edu>
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